<center>**REMARKS/ARGUMENTS**</center>

Amendments were made to the specification on page 19 lines 9-27 to include reference numerals 502 and 512 for Figure 5. No new matter has been added by any of the amendments to the specification.

Claims 1-19 are pending in the present application. Claims 3, 9, and 15 are canceled; claims 1, 4-8, 10-14 and 16-19 are amended. Support for amendments to claims 1, 7, and 13 is provided by incorporation of features from cancelled dependent claims 3, 9, and 15 respectively. Support for amendments to claims 4-6, 8, 10-12, 14, and 16-19 for proper claim dependency sequence, may be found in the claims themselves. Reconsideration of the claims is respectfully requested.

I.   Objection to the Drawings

The examiner objected to the drawings because reference numerals 502 and 512 were not mentioned in the description. The drawings have not been amended. Applicants have provided an amended paragraph for the specification to include reference numerals 502 and 512. The amendment overcomes the examiner's objection to the drawings.

II.   Objection to the Claims.

The examiner objected to claims 4 and 8-19 due to the following informalities:

Claim 4 appears to claim dependence on the incorrect claim. For the purposes of examination claim 4 is interpreted as depending on claim 2.

Claims 8-12 appear to claim dependence on the incorrect independent claim. For the purposes of examination claims 8,9,11, and 12 are interpreted as depending on claim 7 and claim 10 is interpreted as depending on claim 8.

Claims 13-19 appear to claim dependence on the incorrect independent claim. For the purposes of examination claims 14,15,17, and 19 are interpreted as depending on claim 13,claim 16 is interpreted as depending on claim 14, and claim 19 is interpreted as depending on claim 19.

Office Action dated January 14, 2008, p 3.

Applicants have provided amended claims to claim proper dependence and correct minor typographic errors not related to patentability. The amended claims overcome the examiner's objections to claims 4 and 8-19.

III.   **35 U.S.C. § 101**

       The examiner rejected claims 7-12 under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. Applicants have amended claim 7 according to examiner's suggestion. Accordingly, this rejection is overcome.

IV.   **35 U.S.C. § 102, Anticipation**

       The examiner rejected claims 1-2, 4-8, 10-14, and 16-19 under 35 U.S.C. § 102 as anticipated by *Thebaut* et al., "Policy Management and Conflict Resolution in Computer Networks," U.S. Patent 5,889,953, (March 30, 1999), (hereinafter "*Thebaut*").

> The Examiner states:
>
> a) Consider claims 1 and 7, *Thebaut* et al. clearly show and disclose, a method and computer program product for managing a plurality of computer systems attached to a network (abstract, column 1 lines 12-15, column 2 lines 5-12), said method comprising the computer implement steps of: for each type of element in said plurality of computer systems, defining attributes that are of interest in the operation of said computer systems (column 2 lines 13-21, column 3 lines 25-34, column 5 lines 29-41); for each element in said plurality of computer systems, assigning values to each of said attributes associated with said element (column 3 lines 23-24, column 11 lines 33-48); defining a policy concerning a first set of said elements in terms of relationships between a corresponding first set of values of said attributes associated with said first set of elements and a second set of desired values (abstract, column 2 lines 13-25, column 3 lines 18-24 lines 45-67); and performing at least one operation, chosen from a group of set operations, on said first set of values to determine if said first set of values meets said policy (abstract, column 2 lines 13-25, column 4 lines 9-34, column 6 lines 49-51, column 7 lines 15-16 lines 28-48).

Office Action dated January 14, 2008, pp. 5-6

       A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). In this case, each and every feature of the presently claimed invention is not identically shown in the cited reference, arranged as they are in the claims.

       Claim 1 is representative of the group of claims and is as follows:

       A method for managing a plurality of computer systems attached to a network, said method comprising the computer implement steps of:

defining attributes that are of interest in the operation of said computer systems, for each type of element in said plurality of computer systems;

assigning values to each of said attributes associated with [[said]]an element for each element in said plurality of computer systems;

defining a policy concerning a first set of said elements in terms of relationships between a corresponding first set of values of said attributes associated with said first set of elements and a second set of desired values; and

performing at least one operation, chosen from a group of set operations consisting of: filter, projection, section, diagonal, union, intersection, subset, setminus, and cardinal, on said first set of values to determine if said first set of values meets said policy.

Thebaut does not anticipate claim 1 because *Thebaut* does not teach or suggest the features of claim 1. In particular, *Thebaut* fails to teach the features of,

"defining a policy concerning a first set of said elements in terms of relationships between a corresponding first set of values of said attributes associated with said first set of elements and a second set of desired values"; and

"performing at least one operation, chosen from a group of set operations consisting of: filter, projection, section, diagonal, union, intersection, subset, setminus, and cardinal, on said first set of values to determine if said first set of values meets said policy."

With respect to the feature of "defining a policy concerning a first set of said elements in terms of relationships between a corresponding first set of values of said attributes associated with said first set of elements and a second set of desired values," the examiner believes the following portion of *Thebaut* teaches the claimed feature:

Method and apparatus for determining an enforceable policy applicable to one or more network devices. The method includes attaching one or more rule elements to one or more domain elements to create policies, the domain elements representing network devices and groups of network devices, and the rule elements defining actions, a method for determining whether a conflict exists between the polices, and a method for resolving the conflicts to produce one or more enforceable policies.

Thebaut abstract.

Given this framework, one developing an application in a particular network management area may ask the following questions:
What are the objects in my application?
What are the attributes of the objects?
What (if any) are the ways in which I should group the objects?
Which attributes do I want to monitor and control?
What are the rules in the rule space?
To which objects in the domain are rules attached?
Which events will trigger the policy driver?
What are the actions I want when rules are triggered?

Thebaut col. 2 lines 13-25.

FIG. 1 shows a policy framework 10 according to one embodiment of the present invention. A domain space 12 and a rule space 14 make up policy space 15, and together provide input to a policy driver 16. The output of the policy driver 16 is an action space 17 which generally brings about an enforcement of a policy in network 18. The network 18 communicates attribute values to the domain space 12

Thebaut col. Lines 18-24.

The rule space 14 consists of if-then rules, where the left-hand side of the rule is written in terms of the attributes of objects in the domain space, and the right-hand side is an action. For example, a rule in fault management might be: "If an alarm is red, then forward the alarm parameters to the trouble ticket application." In a security application, an example of a rule is: "If the transmission source is X and the transmission destination is Y, then block the transmission."

The elements of the action space 17 are just the right-hand sides of the rules in the rule space. Actions are dependent on the application. They may include permission or forbiddance of an operation on the network, the modification of attributes in other objects, the display of a console message, or an entry in a log file. For example, there might be just two kinds of actions in fault management: forward an alarm to an external application X, or discard the alarm.

Thebaut col. 3 lines 45-67.

Thebaut teaches in the abstract, "attaching one or more rule elements to one or more domain elements to create policies, the domain elements representing network devices and groups of network devices, and the rule elements defining actions, a method for determining whether a conflict exists between the polices, and a method for resolving the conflicts to produce one or more enforceable policies." The rule elements of *Thebaut* define actions to take when the condition or left side of the rule has been met. *Thebaut* further teaches "attaching one or more rule elements to one or more domain elements to create policies."

In contrast, the claimed feature does not have the structure taught by *Thebaut*. In particular the claimed feature does not have a rule structure according to the teaching of *Thebaut* comprising a left hand portion and a right hand portion. The claimed feature does not attach a rule element to a domain element to define a policy. The policy as claimed is defined as a relationship corresponding between a first set of attributes associated with a first set of elements and a second set of desired values using a completely different structure developed according to set notation. Further the policy structure as claimed does not have an action as taught by *Thebaut*. Therefore *Thebaut* teaches away from the claimed features and fails to teach the feature of claim 1.

With regard to the feature of "performing at least one operation, chosen from a group of set operations consisting of: filter, projection, section, diagonal, union, intersection, subset, setminus, and cardinal, on said first set of values to determine if said first set of values meets said policy," the examiner

acknowledges *Thebaut* fails to teach the feature. The examiner states in the office action on page 8 "*Thebaut* et al. does not specifically disclose that said performing step performs an operation chosen from the group of set operations consisting of: filter, projection, section, diagonal, union, intersection, subset, setminus, and cardinal." Therefore *Thebaut* does not teach the claimed feature.

      Thebaut therefore fails to teach the claimed features and thus fails to teach each and every feature of claim 1. Accordingly under the standard of *In re Bond*, *Thebaut* does not anticipate claim 1.

      Claims 7 and 13 have similar features and are therefore distinguished from the teaching of *Thebaut* as are the respective dependent claims 2-4,6, 8, 10-12 and 14, 16-19. Therefore the rejection of claims 1-2, 4-8, 10-14, and 16-19 under 35 U.S.C. § 102 has been overcome.

V. 35 U.S.C. § 103, Obviousness

      The examiner rejected claims 3, 9, and 15 under 35 U.S.C. § 103 as obvious over *Thebaut*. This rejection is respectfully traversed.

      The examiner states:

a) Consider claims 3,9, and 15 and as applied to claims 1,7, and 13 above, *Thebaut* et al. clearly show and disclose, the method, computer program product, and computer system of claims 1, 7, and 13. However, *Thebaut* et al. does not specifically disclose that said performing step performs an operation chosen from the group of set operations consisting of: filter, projection, section, diagonal, union, intersection, subset, setminus, and cardinal.

Nonetheless, the Examiner takes Official Notice of the fact that it is notoriously well known in the art that the operations filter, projection, section, diagonal, union, intersection, subset, setminus, and cardinal are operations used in Set theory concerning collections of objects, and the elements of, and membership in, such collections.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use set operations, as known in the art, in the method taught by *Thebaut* etal. for the purpose of performing operations concerning the grouping of network devices.

Office Action of January 14, 2008 page 8.

      The Examiner bears the burden of establishing a *prima facie* case of obviousness based on prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). In determining obviousness, the scope and content of the prior art are… determined; differences between the prior art and the claims at issue are… ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or non-obviousness of the subject matter is determined. *Graham v. John*

Deere Co., 383 U.S. 1 (1966). "Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR Int'l. Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (April 30, 2007). "*Rejections on obviousness grounds cannot be sustained by mere conclusory statements;* instead, there must be some articulated reasoning with some rational underpinning to support the *legal conclusion* of obviousness. Id. (citing *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006))."

Claims 3, 9 and 15 have been cancelled by this amendment. However, the subject matter of claims 3, 9 and 15 has been incorporated into the claims 1, 7 and 13 respectively. Therefore, Applicants address this rejection.

The examiner believes the claimed feature of "performs an operation chosen from the group of set operations consisting of: filter, projection, section, diagonal, union, intersection, subset, setminus, and cardinal," would have been obvious for the purpose of performing operations concerning the grouping of network devices.

Applicants challenge the examiner's taking of official notice, especially in the context of the claimed invention, as explained further below. Applicants request that the examiner submit an affidavit under 37 C.F.R. § 104(d)(2) supporting this allegation, so that Applicants may have a proper opportunity to respond.

Additionally, the examiner's assertion is incorrect. *Thebaut* is cited as a reference and as such is indicative of the art at the time of the invention. *Thebaut* addresses a problem by choosing s solution that implements a different structure and operates in different manner. As stated previously, the rules of *Thebaut* implement a left hand and right hand portion wherein the right hand portion is an action. The rules of *Thebaut* cause an action to be performed. In contrast, the policy defined by the claimed feature does not cause an action to be performed. The examiner has no basis to assume that in the claimed system, which operates differently than *Thebaut*, the specified commands would be usable or useful or obvious to one of ordinary skill in view of *Thebaut*.

Thebaut teaches attaching a rule element to a domain element. In contrast, the claimed feature does not perform such an attachment. For this reason, *Thebaut* teaches away from the claimed feature. Still more particularly, *Thebaut* teaches:

> In general, the policy driver is triggered by an event, and takes an element in the domain space 12 as a parameter. In fault management, the policy driver can be triggered by an alarm, and the parameter is just the alarm. In configuration management, the policy driver can be triggered by a device being switched on, and the parameter is the name of the device.

The operation of the policy driver 16 is as follows: For domain element E do:
1. Collect all domains D of which E is a member (either directly or indirectly).
2. Collect the rules that apply to each domain D (if any), plus the rules for E (if any).
3. Resolve any conflicting rules, producing an enforceable rule set.
4. Execute the action of each rule in the enforceable rule set.

Conflicts occur when two rules issue two inconsistent actions. Consider FIG. 2, which illustrates a data structure (20) for one example of a domain space (21), a rule space (22) and a policy space (23). If the policy driver is triggered for Object 1 (24), and Object 1 inherits policies from parent Domain 1 (26) and grandparent Domain 2 (28), it is possible that Rule 1 (25) and Rule 2 (27) are triggered and that they have inconsistent actions. The purpose of the conflict resolution strategy is to adjudicate what happens.

Thebaut col. 4 lines 15-25.

The operation taught by *Thebault* is different from the claimed feature. The data structure, as taught by *Thebaut*, of the rules and combinations of rules is not found in the claimed feature. The conflicting rules and resolution required in *Thebaut* is not found in the claimed feature.

The attachment of rule elements to domain elements is contrary to the operation of the claimed feature. The feature does not attach nor does it have rules as taught by *Thebaut*. The policy of the claimed feature is defined in a manner previously stated that differs from the teaching of *Thebaut*. Further as shown the policy as implemented in the claimed feature does not perform an action as taught in the rule of *Thebaut*. In fact, the claimed feature would therefore render *Thebaut* inoperative.

The use of set theory-based implementation of the claimed feature, as suggested by the examiner, would render the operation of *Thebaut* ineffective because the structure would have to be altered. There is no motivation to modify *Thebaut* to use the claimed feature, as *Thebaut* addressed the problem *Thebaut* desired to solve in a completely different manner.

Therefore, one skilled in the art would not choose to modify the teaching of *Thebaut* to use set operations as suggested by the examiner. Hence, the examiner has not provided a *prima facie* obviousness rejection of the claims. Accordingly, the rejection of claims 3, 9, and 15 under 35 U.S.C. § 103 has been overcome.

VI.   <u>Conclusion</u>

The subject application is patentable over the cited references. Therefore, the subject application should now be in condition for allowance. Applicants invite the examiner to call the undersigned at the below-listed telephone number if, in the opinion of the examiner, a telephone conference would expedite or aid the prosecution of this application.

DATE: <u>August 1, 2008</u>

Respectfully submitted,

/Theodore D. Fay, III/

Theodore D. Fay, III
Reg. No. 48,504
Yee & Associates, P.C.
P.O. Box 802333
Dallas, TX 75380
(972) 385-8777
Attorney for Applicants

TDF/wr